

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
12 February 2004 (12.02.2004)

PCT

(10) International Publication Number
WO 2004/013339 A1

- (51) International Patent Classification⁷: **C12P 7/02**, (74) Agent: **WHELAN, Dorothy, P.**; Fish & Richardson, P.C., P.A., Suite 3300, 60 South Sixth Street, Minneapolis, MN 55402 (US).
- (21) International Application Number: **PCT/US2003/023120** (81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (22) International Filing Date: 24 July 2003 (24.07.2003)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data: 60/400,454 2 August 2002 (02.08.2002) US (84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- (63) Related by continuation (CON) or continuation-in-part (CIP) to earlier application: US 60/400,454 (CIP) Filed on 2 August 2002 (02.08.2002)
- (71) Applicant (*for all designated States except US*): **AROMA-GEN CORPORATION** [US/US]; 4625 Merrimac Lane North, Plymouth, MN 55446 (US).
- (72) Inventor; and
- (75) Inventor/Applicant (*for US only*): **SELIFONOV, Sergey, A.** [RU/US]; 4625 Merrimac Lane North, Plymouth, MN 55446 (US).
- Published:**
— with international search report
— before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

(54) Title: METHODS FOR MAKING (-) -MENTHOL AND OXYGENATED MENTHANE COMPOUNDS

(57) **Abstract:** Processes are described for the preparation of (-) menthol from 4R- (+) -menthene or from (+) -limonene, wherein the starting material is hydroxylated using a catalyst comprising at least one polypeptide to form trans-piperitol or trans-isopiperitenol, respectively, followed by hydrogenation to form (-) -menthol.



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